

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference AZ05-278WOWW	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/KR2005/003786	International filing date ( <i>day/month/year</i> ) 09 November 2005 (09.11.2005)	Priority date ( <i>day/month/year</i> ) 10 November 2004 (10.11.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant LG ELECTRONICS INC.		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Date of issuance of this report 15 May 2007 (15.05.2007)  Authorized officer  <div style="text-align: center; font-weight: bold; font-size: 1.2em;">Philippe Becamel</div>  e-mail: pt12.pct@wipo.int
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# PATENT COOPERATION TREATY

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# PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)	2 February 2006 (02.02.2006)
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Applicant's or agent's file reference  
**AZ05-278WOWW**

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
**PCT/KR 2005/003786**

International filing date (day/month/year)  
**9 November 2005 (09.11.2005)**

Priority Date (day/month/year)  
**10 November 2004 (10.11.2004)**

International Patent Classification (IPC) or both national classification and IPC  
**D06F 58/06 (2006.01); D06F 37/20 (2006.01); F16C 11/06 (2006.01)**

Applicant

**LG ELECTRONICS INC.**

**1. This opinion contains indications relating to the following items:**

- ☒ Cont. No. I Basis of the opinion
- ☐ Cont. No. II Priority
- ☐ Cont. No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Cont. No. IV Lack of unity of invention
- ☒ Cont. No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Cont. No. VI Certain documents cited
- ☐ Cont. No. VII Certain defects in the international application
- ☐ Cont. No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/KR 2005/003786

**Continuation No. I**

**Basis of the opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed.

**Continuation No. V**

**Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims 4, 6-8, 14-16, 18, 20, 23-25, 29, 31-34, 37-39, 44, 45, 47, 48	YES
	Claims 1-3, 5, 9-13, 17, 19, 21, 22, 26-28, 30, 35, 36, 40-43, 46	NO
Inventive step (IS)	Claims 4, 6-8, 16, 18, 20, 23-25, 29, 31, 34, 37-39, 44, 45, 47, 48	YES
	Claims 1-3, 5, 9-15, 17, 19, 21, 22, 26-28, 30, 32, 33, 35, 36, 40-43, 46	NO
Industrial applicability (IA)	Claims 1-48	YES
	Claims ----	NO

**2. Citations and explanations:**

Document D1 (US 5 483 756 A) shows a back wall 1 that is firmly joined to a housing 2 of a clothes drier in a region of a bearing. The journal 3 has a bearing head 5 which has a spherical surface 6. A drum bottom 8 is inverted upward in cuplike fashion in the region of the bearing and receives a two-part bearing shell 9. A part 11, constructed in two parts (Fig. 2), of the bearing shell 9 covers the cup-shaped indentation of the drum bottom 8. The parts 10 and 11 each have a respective annular flange 12 and 13, which are joined to each other by connecting elements 14. Additionally included in the connection is a cup-shaped slide ring or annular disk 15, which is in constant galvanic contact with the contact spring 7 despite the rotary motion of the slide ring 15. Therefore the subject-matters of claims 1-3, 5, 9-13, 17, 19, 21, 22, 26-28, 30, 35, 36, 40-43, 46 are not new and do not involve an inventive step.

Document D2 (US 4 712 940 A) embodies a ball joint 10 which includes grease reservoirs 72 and 74. The grease reservoir 72 is located between the pilot portion 70 of the plastic bearing liner 51 and the ball portion 15 of the ball stud 12. The grease reservoir 74 is an annular chamber which extends around the ball stud 12 near the equator of the ball portion 15. A plurality of grease grooves 84 are formed on the inner surface of the bearing liner 51. These grease grooves provide for a flow of grease between the reservoirs 72 and 74 and between

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the bearing liner 51 and the ball portion 15 of the ball stud 12. By reason that both documents D1 and D2 include ball joints the skilled person would therefore regard it as a normal design option to combine the features of documents D1 and D2 to solve the problem posed. Hence, the features of claims 14, 15, 32, 33 are shown in combination of documents D1 and D2. The subject-matters of claims 14, 15, 32, 33 do not involve an inventive step.

Document EP 0 344 452 A1 comprises a bearing 4 for a drier with a plastic sleeve 5 housed in a support 6 and containing a pivot 7 fixed to the drum 3.

Document US 3 306 640 A includes a ball and socket joint with a first and a second housing 16, 18 wherein two bearings 36, 38 are provided.

In summary it can be ascertained that the subject-matters of claims 4, 6-8, 16, 18, 20, 23-25, 29, 31, 34, 37-39, 44, 45, 47, 48 are new and involve an inventive step. The subject-matters of claims 1-3, 5, 9-13, 17, 19, 21, 22, 26-28, 30, 35, 36, 40-43, 46 are not new and do not involve an inventive step. The subject-matter of claims 14, 15, 32, 33 are new but do not involve an inventive step.

Industrial applicability is given.